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ABSTRACT

The military is the largest educational and training institution in the United States and perhaps the world. Tangible benefits tied to military service include competitive pay, health care, paid vacation, and other perquisites. Compared to the civilian sector, the military has relatively more technicians, operators, mechanics, repairers, and transporters. A comparison of entry-level military jobs and civilian jobs shows that the former are rated as more complex. In addition, women and minorities have made considerable progress and enjoy more or less full-fledged member status, which includes equal rank, pay, and benefits. One of the most important benefits associated with the military is the opportunity to get an education. Furthermore, military educational benefits and effects do not end with time in service. Less tangible benefits are also associated with military service. Aside from solidifying and expanding basic academic and vocational skills, affiliation with the military imparts work attitudes and behaviors that are important factors in job performance and valued by employers in all sectors. As the military downsizes, employers will find at least in the short run a supply of able and valuable people to hire. Perhaps the biggest implication of downsizing for the work force is that the extensive opportunities provided by the armed forces will be open to fewer people. (Appendixes include 3 endnotes and 30 references.) (YLB)

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ED 371 216

The Military: Purveyor of Fine Skills and Comportment for a Few Good Men

by

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U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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for a Few Good Men"
by Janice H. Laurence
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The Military: Purveyor of Fine Skills and Comportment for a Few Good Men

According to Edwin Dorn, the Assistant Secretary of Defense for Personnel and Readiness, the military is "still one of the biggest employers around" and "one of the best" (Dorn 1993). Similarly, military recruiting jingles challenge you to "Aim high," proclaiming that by enlisting you can "Be all you can be" and "Get an edge on life." Furthermore, "It's a great place to start"—going "Full speed ahead"—because "It's not just a job, it's an adventure." But as a few good, proud men become even fewer due to the downsizing of the military, there are bound to be implications for the civilian workforce.

A complete assessment of the workforce implications of the defense drawdown would include a discussion not only of those on active duty but also of military reservists, Defense civilian personnel, and those employed in private industry geared to support the military establishment, among others. To keep this commentary manageable, however, the focus of this paper is on those in uniform on a daily basis—that is, civilians tied to the military and reservists, or so-called weekend warriors, unfortunately will be ignored for the most part. In addition, the scope is narrowed to highlight enlisted personnel, therefore the discussion slights officers as well.

A Job and More

The military is the largest educational and training institution in the U.S. and perhaps the world. Compared to the peacetime high of 2.2 million active duty members in 1987, the 1993 count was down by over 20 percent to 1.7 million. It is expected to dip to 1.6 million or even 1.4 million by 1995. Before the drawdown, the active duty forces took in about 300,000 new "enlistees" and about 20,000 officers annually to compensate for exiting members and sustain its active force. Presently, 200,000 new recruits are needed and 16,000 officers are commissioned for full-time duty.

Although military personnel are trained to actively engage in or support a violent enterprise and must sacrifice their personal freedom and a stable home life, there are numerous benefits and opportunities to be derived from military service. In fact, in comparison to the homicide rates within our own nation's borders, the dangers associated with duty in the Persian Gulf and Somalia pale. To emphasize the point, recall that in 1968, at the height (in terms of casualties) of the Vietnam War, there were 14,623 battle deaths. In that same year 13,648 people were murdered or fell victim to non-negligent manslaughter in the U.S. Further, it is argued that this number would have been higher had a significant number of young men not been "in harm's way" (Reiss and Roth 1993).

The military environment is quite comprehensive, providing much more than "three hots and a cot." Soldiers, sailors, marines, and airmen are socialized, trained, employed, counseled, supported, cared for medically, and encouraged to take advantage of numerous educational opportunities provided and afforded by the military. Also, military policy and action are devoted to maintaining a relatively drug-free workplace. Though it is argued that the military is becoming more of an occupation than an institution (see Moskos 1988a), social support in the form of community and family services, financial and legal advice, and recreational facilities extend beyond a typical employee's nine-to-five workday. More tangible benefits tied to military service include competitive pay (even while in training), health care, paid vacation, and other perquisites including shopping privileges at "discount" or subsidized grocery and variety stores.

In 1992, the average enlisted person just out of basic military and job training with six months into his or her enlistment term earned what amounted to $17,244 in pay and housing and dining allowances. After a year in service, this amount rose to $18,535; after four years, a typical member of the enlisted ranks earned slightly over $22,000 for the year. The combination of basic pay and allowances (termed regular military compensation) for officers in 1992 yielded amounts such as $32,592 for a Lieutenant after serving two years; $43,592 for a Captain (or a Navy Lieutenant) at the three year mark; and $52,393 for a Major or Navy Lieutenant

Commander with 10 years of experience. With just over 20 years as a member of the armed services, a "bird" Colonel earns about $85,000 annually. These figures do not include special pay and allowances or lump-sum bonuses offered at enlistment or reenlistment for some jobs.

Such remuneration is offered not just for taking up arms and soldiering in the traditional sense but for contributing to the military workforce as technicians, clerks, mechanics, high-tech equipment operators and repairers, or in one of hundreds of other jobs that have a civilian counterpart. As of FY 1992, the 1.5 million or so members of the enlisted ranks were distributed within the Department of Defense's (DoD) occupational taxonomy as follows:

DoD Occupational Group	Percent of Enlisted Force
Infantry, Gun Crews, and Seamanship Specialists	16.3
Electronic Equipment Repairers	10.0
Communications and Intelligence Specialists	9.6
Medical and Dental Specialists	6.2
Other Allied Specialists	2.3
Functional Support and Administration	15.5
Electrical/Mechanical Equipment Repairers	19.8
Craftsmen	4.0
Service and Supply Handlers	8.5
Non-Occupational	7.8

Only one in six enlisted members could be classified as purely combat job incumbents, whereas almost one in four served in high-tech jobs in electronic equipment repair, in communications and intelligence, or as other allied specialists. The military is not just filled with rifle slingers anymore. Combat has become more technologically complex and relatively less labor-intensive over the years, while more manpower has been added behind the combat scenes. Table 1 presents snapshots of the occupational distribution of male enlisted personnel over the years. Clearly, the military employs proportionately fewer of its workers in general military skills today compared to the Civil War or even the World War II era. Although most military jobs continue to be in the blue-collar category, white-collar technical jobs have swelled.

There are numerous, if not countless, ways to categorize jobs, and Table 2 presents a more detailed vantage point for looking at the occupational distribution of military enlistees. These approximations, based on 1991 authorized end strength, are meant to convey a more functional description of what people do in the military. The numbers fall short of the total number of enlisted personnel and new recruits for 1991 because they exclude those not in an occupational status (e.g., trainees, patients) and the "extras" brought in every year to compensate for first-term turnover or attrition from the military. It is also important to keep in mind that these are pre-drawdown figures.

The most populous jobs in the military are those in administration: almost one out of five military workers are employed as stock and inventory clerks, shipping and receiving clerks, dispatchers, and the like. Not far behind are electronic and electrical equipment repairers, with about one in six of the services' human resources engaged in such occupational pursuits as ordnance mechanics, line installers or fixing radio, radar, and sonar equipment. Vehicle and machinery mechanics also make a good showing—more than one out of seven enlisted personnel work as aircraft, automobile, and engine mechanics. Together these types of jobs account for half of all military workers. Although combat specialties do not win, place, or show, they do

Table 1

Percentage Distribution of Male Enlisted Military Personnel by Occupational Category Over Time

Occupational Category	Civil War	WWII	1992
White Collar	.9	25.2	43.9
Technical[a]	.2	11.6	29.7
Clerical	.7	13.6	14.2
Blue Collar	99.1	74.7	56.1
Craftsmen[b]	.6	25.9	27.8
Service & Supply	5.3	14.8	9.0
General Military	93.2	34.0	19.3

Source for Civil War and WWII: Eitelberg, M.J. (1988).

[a] Includes electronic equipment repairers, communications and intelligence specialists, medical and dental specialists, and other technical and allied specialists.

[b] Includes electrical and mechanical equipment repairers and craftsmen.

Table 2

Approximate Distribution of Active Duty Military Enlisted Personnel and New Recruits by Occupation Type Estimated as of FY 1991

Occupation Type	# Enlisted Personnel/ Incumbents (Percent)	Annual # of New Recruits (Percent)
Human Services	3,000 (.2)	180 (.1)
Media & Public Affairs	20,050 (1.4)	1,940 (1.4)
Health Care	89,140 (6.1)	8,150 (5.7)
Engineering, Science, & Technical	143,950 (9.9)	13,420 (9.9)
Administrative	275,350 (18.9)	21,360 (14.9)
Service	108,500 (7.4)	10,300 (7.2)
Vehicle & Machinery Mechanic	223,600 (15.3)	17,530 (12.2)
Electronic & Electrical Equipment Repair	240,400 (16.5)	15,450 (10.8)
Construction	14,400 (1.0)	1,550 (1.1)
Machine Operator & Precision Work	49,500 (3.4)	3,480 (2.4)
Transportation & Material Handling	93,300 (6.4)	17,890 (12.5)
Combat Specialty	196,700 (13.5)	32,200 (22.4)

Source: Department of Defense 1993

rank fourth in the proportion of enlisted personnel (13.5 percent).

Although it is difficult to gauge the congruency between the distribution of military and non-military workers because of taxonomic and population differences, casual inspection of 1988 data from the Bureau of Labor Statistics (U.S. Department of Labor 1990) suggests that although there may be similar proportions of administrative personnel, the military has relatively more technicians, operators, mechanics, repairers, and transporters. Non-military public and private industries, on the other hand, are heavier on service and construction workers.

There was a time when the military could hire on the basis of a prospective soldier's ability to understand simple orders given in the English language. Much has changed in half of a century. Additional evidence of the military's technical evolution can be gleaned by examining occupational characteristics associated with military jobs. Table 3 displays 44 job characteristics organized within 6 types of characteristics (i.e., worker functions or job complexity; academic and vocational training required; aptitudes, temperaments, interests typical of incumbents; and physical demands and environmental working conditions associated with the job) that are used to describe jobs within the Department of Labor's Dictionary of Occupational Titles (DOT) system. Table 4 presents the average ratings for a random sample of all civilian jobs and entry-level military enlisted jobs.[1] Before examining these ratings it is important to note that the accuracy of these job content and requirement measures is not beyond reproach (Miller, Treiman, Cain, and Roos 1980). However, these measures are useful for comparative purposes.

Of particular note from this comparison of entry-level military jobs and civilian jobs is that the former are rated as more complex (e.g., .95 for the military and 6.83 for the civilian sector in terms of the reverse coded "people" worker function). Military jobs are more likely to involve negotiating with people, whereas civilian jobs entail serving others. Military jobs, on average, require slightly more general educational preparation—as well as slightly more vocational preparation—and require somewhat higher cognitive, psychomotor, and perceptual aptitude levels. In short, entry-level military jobs are at least, if not more, demanding of workers than those on the "outside."

Similarly, a comparison of the occupational distribution of male recruits who entered the military in 1980 and civilian non-college labor force entrants led to the conclusion that the level of challenge for military youth compare favorably with youth who remain in the civilian sector. It appears that the fields with the heaviest concentration of civilian youth required somewhat less technological sophistication than did the military specialties (Ramsberger, Laurence, and Harris 1989).

Table 3

The DOT Occupational Characteristics, Fourth Edition

Variable Label	Description	Scoring
Worker functions[a]		
DATA	complexity of function in relation to data	0 to 6
PEOPLE	complexity of function in relation to people	0 to 8
THINGS	complexity of function in relation to things	0 to 7
Training times		
GED	general educational development	1 to 6
SVP	specific vocational preparation	1 to 9
Aptitudes[a]		
INTELL	intelligence	1 to 4
VERBAL	verbal aptitude	1 to 5
NUMER	numerical aptitude	1 to 5
SPATIAL	spatial perception	1 to 5
FORM	form perception	1 to 5
CLERICAL	clerical perception	1 to 5
MOTOR	motor coordination	1 to 5
FINGDEX	finger dexterity	1 to 5
MANDEX	manual dexterity	1 to 5
EYEHAND	eye-hand-foot coordination	1 to 5
COLORDIS	color discrimination	1 to 5
Temperaments		
DCP	direction, control, and planning	0/1
FIF	feelings, ideas, or facts	0/1
INFLU	influencing people	0/1
SJC	sensory or judgmental criteria	0/1
MVC	measurable or verifiable criteria	0/1
DEPL	dealing with people	0/1
REPCON	repetitive or continuous processes	0/1
PUS	performing under stress	0/1
STS	set limits, tolerances, or standards	0/1
VARCH	variety and change	0/1
Interests[b]		
DATACOM	communication of data versus activities with things	-1 to 1
SCIENCE	scientific and technical activities versus business contact	-1 to 1
ABSTRACT	abstract and creative versus routine, concrete activities	-1 to 1
MACHINE	activities involving processes, machines, or techniques versus social welfare	-1 to 1
TANGIBLE	activities resulting in tangible, productive satisfaction versus prestige, esteem	-1 to 1
Physical demands		
STRENGTH	lifting, carrying, pulling, pushing	1 to 5
CLIMB	climbing, balancing	0/1
STOOP	stooping, kneeling, crouching, crawling	0/1
REACH	reaching, handling, fingering, feeling	0/1
TALK	talking, hearing	0/1
SEE	seeing	0/1
Working conditions		
LOCATION	outside working conditions	1 to 3
COLD	extreme cold	0/1
HEAT	extreme heat	0/1
WET	wet, humid	0/1
NOISE	noise, vibration	0/1
HAZARDS	hazardous conditions	0/1
ATMOSPHR	fumes, odor, dust, gases, poor ventilation	0/1

Source: Miller, Treiman, Cain, and Roos (1980).

[a] High scores correspond to low values.

[b] -1 = interest in second of paired item, 0 = interest in neither of pair, 1 = interest in first item in pair.

Table 4

Descriptive Statistics for Military (N=965) and Civilian Occupations (N=1,172)

Variable Label	Means		Standard Deviations	
	Military	Civilian	Military	Civilian
Worker functions				
DATA	3.54	4.11	1.22	2.09
PEOPLE	.95	6.83	1.27	1.85
THINGS	4.74	4.32	2.14	2.31
Training times				
GED	3.88	3.00	0.62	1.09
SVP	6.27	4.46	1.25	2.06
Aptitudes				
INTELL	2.29	3.19	0.53	0.72
VERBAL	2.07	3.43	0.56	0.78
NUMER	1.94	3.63	0.51	0.78
SPATIAL	2.28	3.47	0.79	0.71
FORM	2.31	3.36	0.76	0.67
CLERICAL	1.48	3.89	0.74	0.79
MOTOR	1.85	3.46	0.53	0.56
FINGDEX	2.02	3.56	0.67	0.61
MANDEX	2.30	3.21	0.74	0.53
EYEHAND	0.61	4.67	0.75	0.60
COLORDIS	0.84	4.52	0.81	0.70
Temperaments				
DCP	0.04	0.18	0.20	0.38
FIF	0.04	0.01	0.20	0.10
INFLU	0.02	0.04	0.12	0.20
SJC	0.24	0.17	0.43	0.38
MVC	0.76	0.39	0.43	0.49
DEPL	0.15	0.23	0.36	0.42
REPCON	0.07	0.46	0.26	0.50
PUS	0.11	0.02	0.31	0.16
STS	0.78	0.60	0.42	0.49
VARCH	0.61	0.20	0.49	0.40
Interests				
DATACOM	0.36	-0.57	0.74	0.66
SCIENCE	-0.13	-0.12	0.56	0.45
ABSTRACT	0.11	-0.47	0.42	0.53
MACHINE	-0.76	0.62	0.50	0.55
TANGIBLE	-0.47	-0.05	0.63	0.47
Physical demands				
STRENGTH	2.35	2.39	0.93	0.91
CLIMB	0.13	0.08	0.34	0.27
STOOP	0.42	0.20	0.49	0.40
REACH	0.94	0.89	0.23	0.31
TALK	0.60	0.29	0.49	0.45
SEE	0.76	0.57	0.43	0.49
Working conditions				
LOCATION	1.34	1.22	0.59	0.56
COLD	0.004	0.01	0.07	0.08
HEAT	0.01	0.05	0.11	0.21
WET	0.02	0.07	0.14	0.25
NOISE	0.30	0.29	0.46	0.45
HAZARDS	0.23	0.15	0.42	0.35
ATMOSPHR	0.06	0.12	0.23	0.33

Source: Civilian—Miller, Treiman, Cain, and Roos (1980); Military—Harris, McCloy, Dempsey, Roth, Sackett, Hedges, Smith, and Hogan (1991).

Workforce Diversity

Not only are the military's jobs diverse, so too is its workforce. Although the armed services are still a male bastion and the military is reluctant to open its doors to those with so-called nonconforming sexual orientations, women and minorities have made considerable inroads and enjoy more or less full-fledged member status, which includes equal rank, pay, and benefits.

Wartime emergencies brought women into service to free men for combat duties, but their participation dwindled as crises passed. However, with the demise of the draft in 1973 and newfound recruiting contingencies, the participation of women began to climb. While in 1967 women were limited to 2 percent of the active duty forces and could not reach beyond the rank of Lieutenant Colonel, today they constitute 11 percent of the 1.5 million enlisted members and 13 percent of the 255,240 officers on active duty. Not only have women been finding their way into the military, but their roles have also been expanding. Although women are still excluded from combat jobs and may be restricted in assignment to other positions because of personnel rotation practices, they can and do serve in nontraditional areas such as crafts and electronic equipment repair. In fact, according to a military personnel policy expert,

> ...her chances of getting a nontraditional position are probably better in today's military than in most areas of civilian employment—owing to the availability of these jobs, the training opportunities, and the Armed Services' commitment to fair treatment under existing laws (Eitelberg 1988, 172).

As pay is determined by rank, in military jobs women receive pay and benefits comparable to men. Also, according to a 1985 assessment, women in the enlisted ranks earn more than civilian women with a high school diploma, and female officers outearn civilian women who have completed four years of college (Defleur and Warner 1985).

The success of minorities, particularly blacks, in the military is even more impressive. As illustrated in Table 5, beginning with the establishment of the All Volunteer Force in 1973, the proportion of blacks in the military grew through the 1980s.[2] For almost two decades and counting, African Americans in uniform have exceeded their representation among the youth population. In addition to their overrepresentation among incoming recruits, higher retention rates result in an even greater percentage of blacks among all enlisted personnel on active duty. At the end of FY 1992 for example, there were over 340,000 black enlisted men and women comprising about 22 percent of the total.

Table 5
Blacks as a Percentage of 18-24 Year Old Civilians and First Time Recruits by Service and Total DoD For Selected Years from 1973 to 1992

Fiscal Year	Service					Civilians Ages 18-24
	Army	Navy	Marine Corps	Air Force	Total DoD	
1973	20.7	11.0	21.5	14.5	17.1	12.6
1976	24.3	8.7	16.2	10.7	17.2	13.3
1979	36.7	15.6	27.7	15.9	25.9	13.8
1982	24.5	13.7	17.5	15.6	18.8	14.2
1985	22.4	15.3	18.8	15.6	18.6	14.7
1988	25.1	20.3	18.4	13.5	20.8	14.6
1991	20.0	16.0	14.2	10.8	16.5	14.3
1992	20.4	16.8	13.0	11.1	16.6	14.3

Source: Department of Defense 1993

Another indicator of the attractiveness of the military for blacks is their higher enlistment propensity. In 1991, about 39 percent of black male youth between the ages of 16 and 24 expressed a strong interest in joining the military, compared with 20 percent of comparably aged white males. Interest is even higher among the younger subsets (e.g., about 45 and 31 percent, respectively, for black and white 16- to 18-year-old youth in 1991) and among those with lower aptitude levels and those who failed to graduate from high school (see Defense Manpower Data Center 1993). These propensity rates are down from pre-Desert Storm and pre-drawdown 50-plus percent levels. The claim that the military is especially attractive to minorities is bolstered by estimates that about 20 percent of black male youth participate in the military, compared to 13 percent of white male youth. The participation rates are even higher and the disparity greater among qualified male youth—50 percent of blacks and 16 percent of whites meeting the military's aptitude minimums actually serve (Binkin and Eitelberg 1986).

One can safely assume that if greater access were granted, more minorities would enlist in the military. Unfortunately, and for reasons too complicated to explain here, there are aptitude test score differences between whites and blacks favoring the former. To be more specific, in 1980 the median percentile score for 18-to 24-year-old black youth on the military's main entry hurdle—the Armed Forces Qualification Test—was 17, compared to 59 for whites. Although average

standardized test scores for blacks seem to be on the rise, the gap between the races is still quite large and stubborn (Laurence and Kageff, in press).

Entry requirements, most notably the attainment of a college degree, also reduce the chances of being commissioned as an officer. Despite the test score and educational hurdles, blacks constitute around 7 percent of both incoming and total active duty officers. Compared with only 6 percent of blacks among the pool of civilian college graduates, this minority group is no longer underrepresented among the military's managers and professionals.[3]

The attraction to the military despite the entry odds most likely is influenced by the in-service career and economic success afforded by this institution. The commitment to equal opportunity by the military has led to a "success story" for blacks in uniform according to noted military sociologist Charles Moskos (1986). Although race relations are not yet perfect, they have come a long way since President Truman issued Executive Order 9981 in 1948 catapulting the military's integration efforts and achievements ahead of other sectors in society. Today, the Defense Equal Opportunity Management Institute actively promotes positive race relations. Moreover, the military's commitment is exemplified by the fact that officers—commissioned and non-commissioned alike—are evaluated in terms of their support for equal opportunity (Moskos 1991). Blacks can and do achieve high ranks and assume management and leadership positions, which according to Moskos (1988b) is unparalleled in the civilian sector. There is another simple fact: blacks in the military outearn comparably aged and educated blacks in the civilian labor force (Gilroy, Daymont, Andrisani, and Phillips 1991).

Although Hispanics are not overrepresented in the military, there are indications that the military is also more attractive to this minority than to whites. Again, data from DoD's annual Youth Attitude Tracking Study (YATS) indicate that 31 percent of 16- to 24-year-old Hispanic men said that they were inclined to enlist in 1991, compared to 45 percent of all 16- to 18-year-olds (Defense Manpower Data Center 1993). Although Hispanic youth are comparable to black youth in their enlistment attitudes and, on average, tend to outscore blacks on the entrance test, their actual representation among accessions and active duty enlisted personnel is not above their population proportions (currently around 12 percent of 18- to 24-year-old youth are Hispanic). A greater percentage of Hispanics have entered the military over the past decade, but in 1992 their share of accessions stood at 8 percent. Speculation for this phenomenon explains that English language proficiency and relatively high dropout rates are among the formidable barriers for Hispanic youth. Also, error in ethnicity categorization may result in an undercount of Hispanics in the military.

Educational Opportunities

One of the most important and lucrative benefits associated with the military is the opportunity to get an education on Uncle Sam's tab. In FY 1992, about 700,000 active duty military officers and enlisted personnel were enrolled in Voluntary Education programs in off-duty time. Some 630,000 were participating in undergraduate programs and 70,000 were in graduate programs. Among these students, 30,000 earned degrees last year—19,000 Associates, 7,000 Baccalaureates, 5,000 Masters, and 45 Ph.D.s. Generally, the military picks up about 75 percent of the costs, and in 1992 DoD's contribution came to $119.2 million. Defense supports more than college degrees. In 1992, about 150,000 other servicemembers were enrolled in functional/basic skills courses.

Although more restrictive entry requirements, applied during the 1980s and continued into the 1990s, have practically halted the enlistment of high school dropouts, there was a time when the military could be credited with increasing graduation (or equivalent) rates. For example, according to a 1985 survey of Army enlisted veterans who successfully completed one term of service and left between October 1981 and September 1984, approximately 19.3 percent had entered the Army without a high school diploma; however, by the time of separation, only 7.4 percent did not have at least a diploma or equivalent (U.S. Army Research Institute 1986).

When this Army sample was asked how important educational benefits were in making the decision to enlist, 46.3 percent said it was important or very important. The figures by race/ethnicity are also telling: 39.1 percent for whites, 60.5 percent for blacks, and 54.4 percent for Hispanics.

Officers may be relatively neglected in this account of military benefits, but one would be sorely remiss to avoid all mention of the vast educational opportunities that such military members routinely use. Practically all commissioned officers have a college degree when they enter the military, and a substantial number of incoming officers had some or all of their college education paid for by the same generous Uncle who offers tuition assistance after enlistment/commissioning. Full freight is paid for the almost 20 percent of officers who are academy graduates. Another 22 percent of newly commissioned officers received stipends and scholarships for schools other than West Point, the Naval Academy, or the Air Force Academy in connection with the Reserve Officer Training Corps (ROTC) program. And others received lesser but real perquisites for other routes to becoming an officer (Department of Defense 1993; see also Eitelberg et al. 1991). ROTC presence in predominantly "black" colleges such as Norfolk State University and South Carolina State College has been substantial (Eitelberg et al. 1991), clearing the path to a college degree for a larger number of

minorities. Although tough entry requirements are applied to officer applicants, there are programs such as the Navy's Broadened Opportunity for Officer Selection and Training Program (BOOST), which academically prepares those potentially deserving but lacking the necessary academic qualifications.

And there's more. Military educational benefits and effects do not end with time in service. The military offers a venerable program that provides veterans with educational opportunities. After World War II, the GI Bill of Rights was instituted to ease the transition back to civilian life. This post-service education benefit has been suspended, revised, and modified over the course of almost 50 years, but with available supplements the current (as of 1985) Montgomery GI Bill can provide up to $25,000 for college or vocational training. Despite the contribution ($100 per month for 12 months) that the individual soldier, sailor, marine, or airmen must make, the enrollment rate is over 70 percent across services. While the usage rate (about 47 percent as of the end of 1992) is a bit discouraging, the ability to make use of this benefit for up to 10 years from the date of discharge should boost this figure.

Comportment

There are also less tangible benefits associated with military service. Aside from solidifying and expanding basic academic and vocational skills, affiliation with the military imparts work attitudes and behaviors that are important factors in job performance and therefore valued by employers in all sectors. Extensive analytic studies on jobs in the Army have shown effort and self-development as well as personal discipline factors to be almost as important as technical or task proficiency to successful job performance (Campbell, McCloy, Oppler, and Sager 1993; Campbell, McHenry, and Wise 1990; Sadacca, Campbell, White, and DiFazio 1989).

The military has long been considered to be a good socializing agency and an environment conducive to "bridging" disparate communities. It is claimed to be effective in weakening racial hostility and dysfunctional patterns and in fostering moral ideals, ethics, self-esteem, respect for authority, and maturity, among others—skills that today employers covet. For example, when presidents, owners, and CEOs of 2,145 private-sector companies were surveyed by the Army in 1990, over 90 percent rated the following worker attributes as important: dependability; efficiency; good judgment; listening to instructions; enthusiasm; working as a team; caring for property; respect; sticking with a task; seeking clarification; punctuality; and self-discipline. Furthermore, a majority (though not an overwhelming number) of companies thought one-term veterans possessed these attributes, and companies that actually employed veterans indicated greater agreement that former Army personnel possessed such traits. Nonetheless, most employers felt that veterans had more or at

least the same amount of the qualities as entry level workers in general. One-third or more thought Army first-term veterans were more dependable, respectful, punctual, adaptable, and cooperative, among other attributes (Schroyer, Hansen, Lerro, and Benedict 1990).

Despite the persistent and consistent theorizing about the military's comportment value, hard data are rather elusive. However, the Army again has tried to capture these non-tangible effects of service. As Table 6 shows, previous cohorts of Army one-term veterans (U.S. Army Research Institute 1986) in fact have indicated that they joined to acquire such skills. Particularly notable is the greater attractiveness of many of these intangibles for blacks and Hispanics, compared with whites. Also, when asked whether they were proud of having been a soldier, 94.7 percent of these survey respondents agreed or strongly agreed. The rates among whites, blacks, and Hispanics were 94.2, 96.2, and 97.5 percent, respectively. Similarly, 76.6 percent of respondents reported being satisfied or very satisfied with their Army experience; rates were comparable among the racial/ethnic groups. Convergent findings surfaced when the question posed inquired about the overall value of Army experience. Overall, 86 percent said that the Army experience was valuable or very valuable, and whites, blacks, and Hispanics were in general agreement (85.6, 87.9, and 90.0, respectively). In open-ended responses, a majority of ex-servicemembers said that the value was in terms of self-growth (63.1 percent), interpersonal relationships (20.7 percent), and job skills and education (20.0 percent).

For another series of questions, respondents indicated the Army's effect on a number of attributes. Table 7, below, provides a percentage tally of those who claimed that the Army had a positive or strong positive effect. Once again, minorities tended to have a more positive assessment of the value of a tour of duty. On every dimension—save pride in serving their country—blacks and particularly Hispanics rated the Army more positively. Some other interesting findings from this survey include the fact that about three-fourths of respondents said that they would join again. Not surprisingly, this percentage was higher among blacks and Hispanics than among whites. Almost 50 percent of respondents thought they should have stayed in the Army; again, this percentage was higher among blacks (69 percent) and Hispanics (61.4 percent) than among whites (37.6 percent).

When asked whether they would like to see an actual or hypothetical son join the military, another positive endorsement was revealed: 75.3 percent answered in the affirmative. The figures for whites, blacks, and Hispanics were 75.2, 75.8, and 79.3, respectively. When asked whether they would favor all young men serving for one year in the military, 70.9 percent said they would probably or strongly favor such an initiative. Respondents were less in favor of a one-year national service obligation (62.6 percent).

A civilian job is more likely to promote personal freedom, a stable home environment, and credit for doing a good job, but promotion opportunities are viewed as more likely in the Army than in the civilian labor market. Furthermore, respondents indicated that the Army has more family support services, more job security, and more pay equity. Although attitudes towards various aspects of Army service are not precise measures, a majority of those who have served feel that they gained from such an experience. Overall, there is much convergent evidence that the military is indeed a purveyor of fine skills and comportment.

Table 6

Percentage of Army One-Term Veterans Rating Enlistment Motivators as Important or Very Important

Reasons for Joining	All	White	Black	Hispanic
Self-improvement	87.1	84.1	93.1	91.4
Skill development	79.4	74.6	89.5	83.5
Money for college	39.2	32.4	51.0	48.8
Serve country	84.9	85.6	83.0	85.4
Was unemployed	28.2	21.4	41.7	35.6
Be on own	50.4	47.8	58.5	50.0
Prove can make it	63.3	59.7	70.6	66.8
Earn more money	52.9	45.1	71.9	56.1
Time to mature	45.2	45.7	43.5	48.26

Source: U.S. Army Research Institute (1986)

Table 7

Percentage of Army One-Term Veterans Rating the Army as Having a Positive or Strong Positive Effect on Personal Attributes

Attribute	All	White	Black	Hispanic
Job skills	64.1	60.7	69.9	74.2
Self-confidence	86.1	84.9	88.6	92.3
Leadership ability	84.9	82.0	91.5	91.0
Ability to work as team	85.4	81.8	91.2	93.5
Respect for authority	76.0	70.5	85.4	85.8
Pride in self	86.6	85.0	89.6	93.6
Openness to new ideas	73.2	67.0	86.1	82.8
Pride in serving country	85.5	85.3	85.2	89.8
Ability to make friends	70.2	65.2	81.0	76.3
Independence	74.9	70.8	82.6	83.9
Self-discipline	84.0	82.2	87.8	88.5

Source: U.S. Army Research Institute (1986)

The Downsizing

What will happen as the military scales back? According to projections from the Defense Manpower Data Center, over the course of FY 1994 alone approximately 315,000 military enlisted members will return to civilian life equipped with many fine skills, credentials, attitudes, and values. About 13 percent of those exiting will possess at least a college degree. Another 3 percent will have some college credits, and almost all will have a high school diploma. About 200,000 will have served as enlistees for one term and will be in their early to mid-twenties. Another 75,000 will have served longer than one term, and about 40,000 will have completed at least 20 years. Over 30 percent of those leaving will be minority group members—at least 20 percent of this number will be black. Those involved in the exodus come from job categories such as electronics, equipment repair, computer programming, communications, health care, accounting and finance, and heavy equipment operations, among others. Many will have received training as health care technicians and more than 10,000 will be skilled metalworkers, welders, machinists, or have experience in the building trades. They will have hands-on experience as work-group leaders and supervisors.

There is good news and bad news evident in these statistics. Aside from the fact that, theoretically, a shrinking military is supposed to reflect a safer world order, employers will find at least in the short-run a supply of able and valuable people to hire. Because recent veterans were selected from the best of their cohort and because the military provides training, educational opportunities, and an environment that fosters sought-after traits such as self-confidence, dependability, team spirit, discipline and punctuality, the picture for employers claiming they can't find good workers and workers who are seeking quality jobs that make use of their abilities should be rosy. Unfortunately this picture may not reflect reality entirely.

Academic assessment of the human capital gains attributable to the military have focused on comparing the earnings of veterans with "comparable" non-veterans. The findings are mixed and hopelessly confounded with numerous studies from different eras predicting a good, bad, or indifferent transition for varying subgroups of veterans. Regardless of the confusion created by conflicting conclusions, it is difficult to argue against the value of educational upgrading, of skills training to the tune of approximately $5 billion annually (Hanser, Davidson, and Stasz 1991), and of the job experience provided by the military. Although the great majority of military jobs have civilian counterparts, lateral entry into a job commensurate with one's military training and experience is far from assured. For those one-term Army veterans mentioned above, only 56 percent who had full-time jobs claimed that they were easy or very easy to land. White Army veterans

found it easier to get civilian jobs (with 63 percent indicating that it was at least easy) than did black (43 percent) or Hispanic (44 percent) veterans. Only about one-third claimed a fair or good degree of similarity between their Army-developed skills and their civilian-job skills (U.S. Army Research Institute 1986).

In a similar analysis, comparing veteran and non-veteran young adults in the labor market in 1984, Mangum and Ball (1989) estimated the rate of military skill transfer to civilian employment to be 49.8 percent for men and 45.1 percent for women. "Comparable" rates for civilian skill training to employment were 56 percent for men and 57.8 percent for women. When employer-provided training was excluded, the civilian rates dropped to 46.7 and 52.6 percent, respectively. The veterans' standing seems respectable given that the military does not aim to support directly the civilian world of employment, but rather trains and places people within its own internal labor market. Nonetheless, Mangum and Ball concluded about this incidental training that "military-provided occupational training is effective in facilitating entrance into and movement through the world of work" (1988, 240). To expect more transfer from military training and experience may not be realistic. Although some 240,400 people serve as military electronic and electrical equipment repairers and the civilian world of work has equivalent jobs in this area, there probably is not a great demand for the military's 60,000 ordnance (bomb) mechanics. And there are even more than 60,000 stock and inventory clerks in the military. There may be a civilian equivalent to most military jobs, but the differing demands for workers in various jobs between the military and civilian sectors should be kept in mind. Another potential obstacle to transfer is geography. Although the military pulls from all regions of the U.S., there are pockets of overrepresentation, particularly from the South. Furthermore, because the mission of the Armed Services is national defense, a notable percentage of individuals have predominantly combat and combat-related job experience with no civilian analog.

But the military has always been a limited tenure organization. Although the exodus has increased with the downsizing, sizable yearly departures are nothing new. Because of the mismatch and misunderstanding between the sectors and perennial transition obstacles, it is unlikely that future smaller military cadres will deplete the civilian economy's supply of experienced workers. There will still be a large number of radio and computer operators and repairers, clerks, police officers, and mechanics for aircraft and other equipment working within and exiting the military. Those currently leaving will not be easily absorbed but can count on special programs to ease the transition and facilitate lateral entry of former military members with equivalent jobs or job clusters. At the very least, partnerships between the military and civilian employers should be forged to facilitate movement in both directions.

Perhaps the biggest implication of the downsizing for the workforce is that the marvelous and extensive opportunities provided by the armed forces will be open to fewer Americans. A weak economy and a relatively small residential job corps program will find it hard to produce good jobs in the requisite numbers. While in 1980 the military employed about 14 percent of 18-year-old men in the enlisted ranks, in 1992 that figure was down to 10 percent and is expected to drop an additional point or more. As the military downsizes not only will 100,000 or more of the nation's youth not be brought into the military annually, but also those who do enter may represent the more—rather than the less—advantaged. As a rational employer, the military

has been taking advantage of its reduced demand for manpower by increasing the quality of its workers. Test score levels of entering recruits are soaring, with a mean percentile of 62 for those enlisted in FY 1992 (compared with a mean of 50 for our nation's youth as a whole). The average reading ability for military newcomers was at the 11th-grade level compared with a 10th-grade level for youth overall (Department of Defense 1993). The quest for quality, together with broadened opportunities for women in tomorrow's military, may worsen the effects of the drawdown for black youth (Eitelberg 1988), who are more predisposed to enlist and suffer glaringly high rates of unemployment (for example, 42.2 percent for 16- to 19-year-old black male youth vs. 17.2 percent for similarly aged white males as of December 1992 [Nixon 1993]) and tend to be amply represented among the ranks of discouraged workers.

Assistant Secretary Dorn is right: the military is still a big employer and it will still help many, but not as many as it used to. Those concerned with the educational, vocational, and social preparation of today's and tomorrow's workers might well learn from the military model. However, finding other training and employment options to take the place of a reduced military will not be easy. The comprehensive, intensive, and long lasting military environment is attractive to many. The military *is* a good welfare and workfare institution because it *isn't*. Civilian conservation corps or national service programs must be viewed as legitimate by those to be served. It also wouldn't hurt to better counsel and prepare youth for not just any jobs but those in demand and those they are suited for. Without viable options to take the military's place, in the future many youth will experience even greater difficulty finding a first full-time job—if they get one at all. Other institutions and programs pale in their ability to prepare non-college-bound youth for work and to inspire and support others in educational pursuits. For 200,000 young men and women every year, "Opportunity is waiting" in the active duty enlisted ranks. But for at least 100,000 others, the military has now become a lost opportunity.

Endnotes

[1] DOT ratings for military jobs were generated as a result of a crosswalk between military and civilian jobs. For more details on the crosswalk methodology and results see Lancaster (1984) and Wright (1984).

[2] The downturn in 1982 from 1979 is a reflection of a scoring error in the Armed Services Vocational Aptitude Battery (ASVAB) between 1976 and 1980, resulting in the enlistment of hundreds of thousands of low-scoring recruits.

[3] For an in-depth discussion of the officer corps see Eitelberg, Laurence, and Brown (1991).

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